

CLIMATOLOGICAL DATA FOR MAY, 1913.

DISTRICT NO. 3, OHIO VALLEY.

Prof. FERDINAND J. WALZ, District Editor.

GENERAL SUMMARY.

The extreme dryness of the first two weeks and the great range in temperature were the more important features of the weather conditions of May, 1913, in the Ohio Valley. In the period 10th-12th there occurred some of the coldest weather ever experienced in the Ohio Valley in May. Temperatures of 20° to 30° were registered in nearly all parts of the district and at a few places they were even lower, a temperature of 16° being reached at Deer Park, Md., on the morning of the 12th. Considerable damage resulted from this unseasonably low temperature, especially to tender vegetables, fruit, and berries. Field crops, however, were not seriously injured. On May 1 the secretary of the Ohio department of agriculture estimated the fruit crop of that State at 90 per cent of an average crop, while on June 1 his estimate was only 52 per cent, the reduction being largely due to this cold wave. The night temperatures during much of the month were so low as to retard the growth of vegetation.

The lack of rain during the first half of the month was beginning to be felt in all parts of the district, but especially in the western portion. Frequent showers over the central and eastern portions during the last half of the month relieved the situation in those sections, but the amount of rain received over the western portion was insufficient to materially relieve the droughty conditions prevailing, and at the end of the month the situation there had become acute.

There were only one or two rather shallow low-pressure areas that crossed the district during the month, conditions being largely dominated by high-pressure areas. Local thunderstorms did some damage in a few localities, but as a whole the month was unusually free from destructive storms. Hailstorms in Tennessee caused the most serious damage.

The following table summarizes the chief features of meteorological interest for the several sections of the district:

Portions of States included in the Ohio River Basin.	Temperature.			Precipitation.							
	Average.	Departure.	Highest.	Lowest.	Average.	Departure.	Greatest monthly.	Least monthly.	Greatest in 24 hours.	Average number of days.	Average snowfall.
New York.....	54.4	-0.7	89	22	2.43	-1.82	2.57	2.20	1.01	9	0
Pennsylvania.....	58.4	-1.3	93	21	4.09	+2.49	7.14	2.33	1.70	12	0
Maryland.....	55.1	-1.3	87	18	6.59	+2.11	7.90	5.56	1.60	12	0
West Virginia.....	61.8	-0.9	93	20	5.06	+1.17	8.86	1.89	2.22	10	0
Ohio.....	60.9	-0.5	95	23	3.31	-0.48	6.15	1.86	3.63	9	0
Indiana.....	63.8	+0.8	97	28	2.30	-1.80	6.43	0.38	4.00	7	0
Illinois.....	65.3	+0.6	98	30	1.39	-2.23	2.65	0.50	2.12	6	0
Kentucky.....	66.1	+0.6	99	29	2.92	-1.06	5.85	0.65	2.36	8	0
Tennessee.....	67.2	+0.7	97	26	4.22	-0.05	7.20	1.75	2.35	9	0
Alabama.....	69.2	+0.2	97	41	4.34	+0.04	7.86	2.63	2.70	10	0
Georgia.....	68.4	+1.3	89	43	5.67	...	...	...	2.12	10	0
North Carolina.....	62.1	+0.1	90	23	5.58	+1.55	7.12	4.24	4.50	10	0
Virginia.....	59.9	-1.1	88	24	5.83	+1.71	7.41	4.41	2.67	10	0

TEMPERATURE.

The unusually cool weather which prevailed during the latter part of April passed off with the close of that month, and May began with more seasonal temperature conditions, although the minimum temperatures registered on the morning of the 1st were quite low over the central, southern, and eastern portions of the district, being below freezing at a number of the more elevated stations in the Appalachian section. It warmed up rapidly on the 1st, and during the following five or six days the average daily temperature ranged between 6° and 16° above normal, with maximum temperatures between 80° and 93°. Over much of the eastern section the highest temperatures of the month were reached during this period. A change to cooler set in about the 7th, and remarkably cool weather obtained until the 12th. On the 10th, 11th, and 12th some of the coldest weather ever experienced in May in the Ohio Valley occurred. Temperatures were below freezing in every section of the district except in the northern portions of Alabama and Georgia. Minimum temperatures of 20° to 30° were registered quite generally in practically all sections, while in western Maryland the temperature fell as low as 16° and 18°. Considerable damage was done by the severe frost as far south as central Kentucky and southwestern Virginia. The strawberry crop was practically ruined in some localities in Indiana and badly damaged over much of Kentucky. Fruit and tender vegetables were also hurt to a considerable extent, but damage to staple crops was immaterial.

The temperature was above the seasonal normal generally from the 13th to the 21st, except that on the 19th it was below normal over northern and central sections, also over those sections the minimum temperatures of the 20th were unseasonably low. Cold weather again overspread the district about the 22d and continued until the 28th, with average daily temperatures deficient in amounts ranging between 8° and 14°, with minimum temperatures registering in the 30's and 40's. The cool weather continued over the northeastern portion practically until the end of the month, but over the rest of the district there was a sharp reaction to warmer on the 29th, and during the 29th-31st the temperature was much above normal, with day temperatures ranging between 85° and 99°, the highest temperature for the month occurring, as a rule, except in the sections previously mentioned, on the 30th or 31st.

For the month as a whole the average temperature was not far from normal for any section, the variations being generally less than 2° in either direction. The departures from normal in the warm and cold periods, respectively, nearly offset each other; also the average number of days with temperature above were nearly equal to those below normal, but the monthly and also the daily ranges on many days were remarkably great. Daily ranges in temperature of 30° to 50° and monthly ranges of 60° to 70° were not uncommon. The extreme range for the district

was from 16° on the 12th in western Maryland to 99° in Kentucky and Illinois on the 30th and 31st, a difference of 83°.

RAINFALL.

Except in Tennessee and northern Alabama, where fairly good rains occurred on the 7th, there was little or no rain in any part of the district until the 14th, and droughty conditions became serious in many sections, but especially in Indiana, Illinois, and western Kentucky. Conditions were relieved somewhat by good and more or less general rains during the last part of the month. The most pronounced periods of rainfall were the 14th-18th, 21st-23d, 26th-28th, and 30th-31st. However, in many localities the moisture received in all these periods was not sufficient for the growing crops. As a rule the total rainfall for the month was above normal or ample over the eastern and southern parts of the district, over eastern Kentucky and southeastern Ohio, and ranged from 4 to 6 inches. Over the remainder of the district the rainfall was generally deficient, although there were from 2 to 4 inches over Ohio, northeastern Indiana, and western Tennessee; but over western Kentucky, southern Indiana, and eastern Illinois the total for the month was less than 2 inches, and in many places less than 1 inch. These sections at the end of the month were suffering acutely for want of moisture.

MISCELLANEOUS.

The following losses from wind squalls, lightning, and hail were reported:

May 7.—Several persons were seriously injured at White Plains, Tenn., when lightning struck a church.

May 8.—A heavy rain and hail storm caused considerable damage at Tracy City, Tenn.

May 9.—A hailstorm occurred at Suwanee, Tenn., which lasted for about 15 minutes, and when it ceased the ground was white with hailstones.

May 13.—A young man was killed by lightning at Maysville, Ky. He had taken refuge in a barn which was struck. Also considerable damage was done by a windstorm at Cynthiana, Ky.

May 14.—Considerable damage was done in Butler County, Ohio, by lightning, wind, and hail.

May 15.—A large barn with all its contents was destroyed by lightning in Lawrence County, Ohio. A hailstorm caused considerable damage in Jackson County, Ohio.

May 20.—Lightning struck a barn at Golconda, Ill., destroying the barn and killing several head of stock.

May 21.—Several houses, barns, and a number of trees of various kinds were destroyed by a windstorm at Savannah, Tenn. A number of persons were injured, but there were no fatalities.

May 24.—A young man plowing in the field near Scottsboro, Ala., was killed by lightning, together with his team.

May 31.—Heavy hailstorms passed over Shelbyville and Chattanooga, Tenn., resulting in considerable damage. Several hailstones measured 8 inches in circumference.

Several thunderstorms caused damage in localities in Indiana during the last half of the month.

RIVERS.

Rain during the last half of the month over the upper watershed of the Ohio River caused bank-full stages of water in some of the larger tributaries of that section near the close of the month. The Cumberland River was navigable to Burnside, Ky., from the 1st to the 10th, and again from the 20th to the close of the month.

TABLE 1.—Climatological data for May, 1913. District No. 3, Ohio Valley.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.						Sky.	Prevailing wind direction.	Observers.			
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.				
<i>New York.</i>																					
Allegany.....	Cattaraugus.....	1,441	7	54.6	-0.7	89	4	23	12	48	2.53	-1.82	1.01	0	10	13	14	4	nw.	Charles E. Whitney.	
Bolivar.....	Allegany.....	1,800	19	54.2	-0.7	89	4	22	12	48	2.20	-1.82	0.86	0	8	10	13	8	w.	Charles F. Hoffman.	
Olean.....	Cattaraugus.....	1,402	5	.....	.....	.....	.....	.....	.....	2.57	.....	0.96	0	9	.....	.....	.....	.....	.....	John W. Alles.
<i>Pennsylvania.</i>																					
Aleppo.....	Green.....	1,135	12	59.6	-1.4	88	4	23	11	46	5.55	+1.73	1.30	0	12	14	9	8	sw.	J. S. Hinerman.	
Baldwin.....	Butler.....	1,404	7	58.0 ^b	.....	88	4	27	11	40 ^b	2.46	.....	0.88	0	10	11	11	7	w.	S. H. Templeton.
Beaver Dam.....	do.....	674	19	.....	.....	.....	.....	.....	.....	3.58	+0.48	0.95	0	11	9	3	19	ne.	U. S. Engineer.	
Brookville.....	Jefferson.....	1,173	22	58.3	.....	89	4	23	12	54	3.75	-0.07	1.45	0	13	.....	.....	.....	w.	H. C. Bartholomew.
California.....	Washington.....	770	10	61.6	.....	91	4	29	11	45	5.19	.....	1.13	0	11	12	4	15	w.	Prof. B. U. P. Cobaugh.
Clarion.....	Clarion.....	1,078	28	.....	.....	.....	.....	.....	.....	2.78	-1.55	0.75	0	10	16	1	14	w.	P. O. Miller.	
Claysville.....	Washington.....	1,127	9	60.2	.....	90	4 ^c	23	11	47	4.04	.....	1.18	0	10	16	8	7	w.	E. T. Buchanan.
Confluence.....	Somerset.....	1,352	29	.....	.....	.....	.....	.....	.....	5.27	+1.13	0.83	0	13	8	6	17	.....	Grant Pyle.	
Franklin.....	Venango.....	955	39	57.0	-1.4	87	5	28	11	45	2.85	-0.46	0.86	0	14	17	1	13	nw.	F. E. Dixon.	
Freeport.....	Armstrong.....	772	40	.....	.....	.....	.....	.....	.....	4.39	+0.44	0.83	0	12	11	2	18	.....	Mrs. Anna R. Burtner.	
Greensburg.....	Green.....	768	24	.....	.....	.....	.....	.....	.....	5.98	+1.76	1.10	0	13	7	11	11	sw.	James G. Cramer.	
Greenville.....	Mercer.....	950	17	56.8	-0.9	90	5	25	12	51	3.05	-0.34	0.73	0	11	25	6	6	dw.	A. M. Orr.	
Indiana.....	Indiana.....	1,350	16	59.8	-0.6	91	5	27	11	45	4.46	+1.40	1.60	0	15	10	6	6	w.	R. W. Wehrle.	
Johnstown.....	Cambria.....	1,184	25	60.6	-0.7	91	4	29	12	44	4.89	+0.56	1.33	0	14	6	18	7	sw.	E. C. Lorentz.	
Lock No. 4.....	Washington.....	718	27	.....	.....	.....	.....	.....	.....	4.66	+0.81	0.82	0	12	10	6	15	sw.	R. T. McGowan.	
Lycippus.....	Westmoreland.....	1,420	21	59.4	-1.9	84	5	28	11	31	4.89	+1.21	1.40	0	12	10	8	8	.....	Murray Forbes.
Mosgrove.....	Armstrong.....	775	.....	.....	.....	.....	.....	.....	.....	0.64	.....	0	12	17	0	14	.....	.....	C. J. Moore.	
Pittsburgh.....	Allegheny.....	842	43	60.6	-2.0	88	4	33	10	33	3.11	-0.19	0.85	0	13	8	8	15	nw.	U. S. Weather Bureau.	
Ridgway.....	Elk.....	60	55.8	.....	88	4 ^c	23	12	51	3.83	.....	0.80	0	13	.....	.....	.....	.....	.....	F. J. Eagen.
Saegerstown.....	Crawford.....	1,116	23	55.0	-2.1	86	5	24	11	46	2.33	-2.21	0.82	0	12	7	17	7	nw.	J. G. Apple.	
Sharon.....	Mercer.....	940	2	58.2	.....	87	5	29	11	43	2.47	-0.04	0.90	0	12	18	0	13	nw.	Norman S. Powell.
Somerset.....	Somerset.....	2,250	57	55.5	-1.4	87	4	24	12	44	5.33	-0.04	1.02	0	10	12	8	11	nw.	W. M. Schrock.	
Uniontown.....	Fayette.....	999	25	60.8	-0.9	89	4	28	11	42	4.56	+1.17	1.70	0	11	13	10	8	w.	Wm. Hunt.	
Warren.....	Warren.....	1,137	24	56.0	-0.7	93	5	22	11	56	3.44	-1.35	1.35	0	10	20	1	10	w.	Anna Simpson.	
<i>Maryland.</i>																					
Deer Park.....	Garrett.....	2,457	20	54.6	-2.0	87	5	16	12	56	6.31	+1.68	1.19	0	12	.....	.....	.....	.....	S. P. Specht.
Grantsville.....	do.....	2,351	20	56.0	-1.0	86	4	22	12	42	5.56	+1.44	1.30	0	11	.....	.....	.....	.....	J. S. Miller.
Oakland.....	do.....	2,461	14	54.8	-1.0	86	5	18	12	52	7.90	+3.21	1.60	0	14	10	13	8	w.	R. E. Weber.	
<i>West Virginia.</i>																					
Bancroft.....	Putnam.....	574	10	65.2	+0.8	93	5 ^c	31	11	48	3.96	-0.16	1.81	0	11	12	5	14	ne.	R. E. Dent.	
Beckley.....	Raleigh.....	2,440	14	58.7	-1.0	85	5	27	11	44	5.11	+2.19	1.20	0	5	13	7	11	w.	John A. Ewart.	
Bens Run.....	Pleasants.....	622	12	63.1	-0.5	90	2 ^c	31	11	45 ^b	4.24	-0.50	0.92	0	10	21	5	5	.....	J. D. Riggs.
Bluefield.....	Mercer.....	2,563	19	62.8	+0.3	85 ^b	.....	30 ^b	12	41 ^b	1.89	-2.28	1.35	0	4	16	5	8	.....	Norfolk & Western R. R.
Buckhannon.....	Upshur.....	1,472	23	59.7	-2.7	85	3 ^c	25	11	43	8.39	+5.08	1.50	0	11	16	6	9	.....	H. A. Darnall.
Cairo.....	Ritchie.....	667	11	63.2	-0.8	92	4	26	11	45	4.98	+1.56	1.30	0	15	9	12	10	w.	Van A. Zevally.	
Central Station.....	Doddridge.....	900	11	61.6	0	90	5	26	11	48	4.78	+1.15	0.95	0	10	9	14	8	sw.	G. W. Sherwood.	
Charleston.....	Kanawha.....	598	28	65.0	-1.0	90	5	34	11	38	3.56	-0.40	1.52	0	11	20	5	6	w.	R. C. Hewes.	
Creston.....	Wirt.....	612	12	63.1	-0.3	91	4	29	11	47	4.21	+0.72	1.05	0	12	13	6	12	sw.	J. M. Reed.	
Cuba.....	Jackson.....	544	13	62.2	-0.8	88	4 ^c	25	11	46	4.16	+0.79	0.74	0	12	9	18	4	w.	C. T. Perry.	
Doane.....	Wayne.....	56	.....	.....	.....	.....	.....	.....	.....	3.98	-0.30	1.20	0	10	13	4	16	.....	L. A. Smith.	
Elkhorn.....	McDowell.....	1,933	21	62.0	-0.8	87	4 ^c	32	11	39	3.98	-0.30	1.20	0	10	13	4	16	w.	J. J. Lincoln.	
Elkins.....	Randolph.....	1,940	18	58.6	-0.6	86	5	25	11	45	5.63	+1.65	1.56	0	17	9	10	12	n.	U. S. Weather Bureau.	
Fairmont.....	Marion.....	879	21	62.4	0	92	4 ^c	27	11	51	6.16	+2.23	0.39	0	13	19	1	11	w.	F. P. Hall.	
Glenville.....	Gilmer.....	738	24	62.6	-0.8	93	5	28	11	49	4.90	+0.83	1.23	0	8	11	12	8	w.	Joe N. Craddock.	
Grafton.....	Taylor.....	985	21	62.8	+0.6	90	3 ^c	27	11	49	7.13	+3.22	1.74	0	10	18	1	12	w.	Joseph Gerken.	
Green Sulphur Springs.....	Summers.....	1,600	18	61.1	-0.6	89	4 ^c	26	11	50 ^b	5.32	+0.25	1.25	0	11	12 ^a	6 ^a	12 ^a	w.	Arthur George.	
Hinton.....	do.....	1,400	24	63.6	-0.7	92	6	31	12	48	4.34	+0.39	1.04	0	10	12	5	14	sw.	J. B. Lavender, C. E. Ferguson.	
Holcomb.....	Nicholas.....	58.8 ^a	47	58.8 ^a	.....	86	4 ^c	28	12	46 ^a	6.36	.....	0	10	14	1	16	.....	.....	L. H. Hutchinson.
Huntington.....	Cabell.....	510	18	64.6	-0.3	91	5	33	11	44	6.44	+2.53	2.22	0	10	18	1	12	w.	Geo. E. Argabrite.	
Lewisburg.....	Greenbrier.....	2,200	13	61.8 ^a	-0.1	88	5	35	13	39	4.14	+0.24	1.53	0	10	25	3	3	sw.	Dr. J. E. McDonald.	
Logan.....	Logan.....	665	11	67.0 ^a	+0.2	91	4	35	11	41 ^b	3.31	-0.83	0	0	16 ^b	5 ^b	2 ^b	e.	Allen Smith.		
Lost Creek.....	Harrison.....	1,033	17	58.6	-2.5	86	4 ^c	22	11	47	5.90	+1.62	1.52	0	10	17	8	6	w.	S. E. McDonald.	
Madison.....	Boone.....	704	8	65.4 ^a	-1.6	91	4 ^c	31	11	48	5.32	-1.66	1.66	0	11	16	6	9	w.	Jas. A. Morgan.	
Mannington.....	Marion.....	967	11	60.0	-1.6	88	3 ^c	28	11	49	5.73	+1.88	1.63	0	11	16	6	9	w.	C. J. McArt.	
Marlinton.....	Pocahontas.....	2,169	17	56.2 ^b	-3.3	82	3 ^c	20	12	52	5.20	+1.19	1.59	0	15	15 ^b	5 ^b	12 ^b	2 ^b	Horace Atwood.
Morgantown.....	Monongalia.....	1,250	30	61.6 ^a	-1.1	88	4	28	11	41 ^a	5.01	+1.44	1.41	0	13	16	6	8	s.	M. L. Brown.	
Marshall.....	do.....	640	11	62.8	-0.4	93	5	28	11	49	3.16	+0.17	0.96	0	7	16	7	8	w.	Frank S. Evans.	
New Cumberland.....	Hancock.....	987	14	59.4	-1.6	88	4 ^c	27	11	44	4.35	+0.21	0.90	0	7	15	4	12	s.	Wm. Ankrom.	
New Martinsville.....	Wetzel.....	634	20	63.6	-0.1																

TABLE 1.—Climatological data for May, 1913. District No. 3—Continued.

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				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmetted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.	
Ohio.																			
Amesville.	Athens.	630	9	62.0		92	5	25	11	52	3.48	0.88	0	0	14	10	7	sw.	F. W. Gibson.
Ashland.	Ashland.	1,079	13	59.7	+ 0.4	87	5	27	12	41	2.85	- 1.54	1.23	0	7	6	5	20	S. W. Brandt.
Bangorville.	Richland.	1,380	26	60.5	+ 0.9	86	3	30	10	33	2.16	- 2.08	0.69	0	12	10	15	6	S. M. Painter.
Bellefontaine.	Logan.	1,276	34	57.9	- 2.6	83	2†	27	11	37	2.13	- 1.38	0.86	0	9	11	13	7	Cory L. Lane.
Bladensburg.	Knox.	1,100	20	57.8	- 1.7	84	5	24 ^d	11	43 ^d	2.64	- 0.72	0.65	0	8				Miss Mary Elliot.
Brilliant.	Jefferson.	700	60.4			89	5	28	11	45	3.16	- 1.00	1.00	0	7	16	5	10	Mrs. Mary K. Pennell.
Cadiz.	Harrison.	1,245	9	61.6		91	5	30	10†	41	2.81	- 1.60	0.46	0	8	12	8	11	Harry B. McConnell.
Cambridge.	Guernsey.	803	21	59.8	- 0.7	87	4†	24	11	48	1.86	- 1.60	0.46	0	10	20	2	5	Samuel Mehafey.
Camp Dennison.	Hamilton.	570	29	62.8	- 1.0	90	30	29	11	46	3.16	- 1.08	0.81	0	11	2	14	5	Henry F. Pinkvoss.
Canal Dover.	Tuscarawas.	884	20																Ed. S. Slingluff.
Canton.	Stark.	1,089	30	59.2	- 0.6	88	6	26	11	43	3.50	- 0.28	0.98	0	9	12	7	12	Carl H. Meyer.
Cardington.	Morrow.	1,010	18	6.06	+ 0.5	89	2	27b	11	45 ^c	2.53	- 0.88	0.77	0	7	21	0	10	J. W. Shaw.
Chillicothe.	Ross.	630	10																Marion Mackey.
Cincinnati.	Hamilton.	628	42	65.8	+ 0.7	91	30	38	1	33	2.30	- 1.22	0.71	0	8	11	12	sw.	U. S. Weather Bureau.
Circleville.	Pickaway.	694	25	62.8	- 0.4	90	2†	28	11	45	2.35	- 1.23	0.74	0	11	17	5	9	Col. S. Tschappat.
Clarington.	Monroe.	600	10	60.4	- 2.0	91	5	25	11	48	4.00	+ 0.78	1.10	0	11	11	7	13	U. S. Weather Bureau.
Columbus.	Franklin.	918	35	61.7	- 0.6	86	5	34	11	30	2.60	- 1.12	0.89	0	9	9	14	8	Mrs. Ada Jeffries.
Coshocton.	Coshocton.	770	4																U. S. Weather Bureau.
Dayton (1).	Montgomery.	899	2	62.7	+ 0.1	87	30	34	11	32	3.41	- 0.47	1.17	0	8	13	3	15	s.
Dayton (2).	do.	790	32	62.6	- 0.3	90	30	28	11	44	3.93	+ 0.11	1.32	0	9	14	10	10	DeWitt H. Leas.
Delaware.	Delaware.	896	16	60.6	+ 0.1	88	2	27	11	46	3.21	- 0.83	1.42	0	10	15	9	7	J. T. Dysart.
Demos.	Belmont.	1,325	25	61.2	0	90	4	30	11	44	3.55	+ 0.10	0.78	0	13	17	6	8	Water Supply Co.
Dennison.	Tuscarawas.	846	3	61.4		93	5	26	11	50	2.57	- 0.63	0	10	17	9	5	O. A. Cory.	
Frankfort.	Ross.	745	21	61.8	- 1.2	91	5	28	11	46	5.41	- 1.31	0.59	0	7	15	5	Samuel F. Neal.	
Gallipolis.	Gallia.	580	1															S. M. Luther.	
Garrettsville.	Licking.	1,003	29	56.2	- 0.7	85	3†	24	11†	44	3.00	- 0.81	0.70	0	12	10	9	nw.	Dr. L. E. Davis.
Granville.	Gratiot.	960	31	60.5	- 0.1	87	5	26	11	43	2.92	- 0.68	0.88	0	10	15	2	14	W. B. Longstreth.
Green.	Adams.	1,000	24	59.8	- 1.0	85	5	27	11	38	2.10	- 1.46	0.49	0	12	12	7	w.	W. F. Kenyon.
Green Hill.	Columbiana.	1,135	20	56.5	- 1.4	85	5	23	11†	43	3.37	+ 0.35	0.84	0	9	19	4	8	Jos. E. Bentley.
Greenville.	Darke.	1,060	27	62.7	+ 2.2	87	2	33	11	48	3.35	- 0.57	1.16	0	9	15	6	10	Geo. A. Katzenberger.
Hamilton.	Butler.	601	1	62.9		88	30	27	10	44	4.07	- 1.35	0	9	18	5	8	Earl W. Stout.	
Haydenville.	Hocking.	700	1	59.5		89	5	25 ^c	11	44 ^c	2.32	- 1.16	0	4				H. W. Stiers.	
Hillsboro.	Highland.	1,063	34															Carey H. Roush.	
Ironton.	Lawrence.	575	30	65.0	+ 1.4	93	5	31	11	44	5.26	+ 1.63	1.60	0	10	14	10	7	James Bull.
Kenton.	Hardin.	1,015	21	59.8	- 0.4	85	2	25	11	36	2.28	- 1.76	0.82	0	6	18	7	1	Frank B. Rarey.
Killbuck.	Holmes.	1,087	20	61.4	+ 1.0	85	2†	27	11†	41	3.18	- 0.54	0.67	0	10	29	1	1	John A. Schonauer.
Kings Mills.	Warren.	640	1															Frank M. See.	
Lancaster.	Fairfield.	898	18	61.2	- 0.7	88	4†	30	11	38	2.01	- 2.08	0.63	0	8	18	2	11	R. L. Renshaw.
McConnelsville.	Morgan.	710	29	60.3	- 1.7	87	5	26	11	42	4.33	+ 0.52	1.40	0	10	12	5	14	C. H. Morris.
Marietta.	Washington.	627	93	63.0	+ 0.1	90	2	29	11	45	5.43	- 1.56	1.69	0	13	10	9	12	Prof. T. D. Biscoe.
Marion.	Marion.	980	35	61.3	+ 0.4	88	2	27	11	42	2.41	- 1.27	0.75	0	11	11	13	7	Dr. E. H. Raffensperger.
Milfordton.	Knox.	1,200	21	59.1	- 0.4	84	3†	28	11	40	2.25	- 1.55	1.13	0	7	15	11	5	L. H. Burgess.
Milligan.	Perry.	875	20															V. C. Eveland.	
Millport.	Columbiana.	1,145	20	57.4	- 1.6	86	5	23	11†	44	3.92	- 0.86	0.96	0	10	8	17	6	G. F. Copeland.
Nellie.	Coshocton.	850	13	58.8	- 2.2	86	5	23	11	50	2.88	- 0.55	0.68	0	10	15	9	7	Ethel L. Gammertsfelder.
New Berlin.	Stark.	1,100	20	58.0	- 1.6	86	3	26	11	48	4.00	+ 0.52	1.00	0	8	22	4	5	Clayton Holl.
New Waterford.	Columbiana.	1,053	18	59.8	- 1.2	93	2	26	11	54	2.97	- 0.40	0	8	18	1	1	Sam. Scott.	
O. S. University.	Franklin.	757	30	60.8	- 0.2	84 ^c	30	29	11	37 ^c	2.47	- 1.39	0.78	0	9	10	12	9	Prof. H. C. Lord.
Oregonia.	Warren.																	E. H. Stephens.	
Patahala.	Licking.	1,015	21	59.8	- 1.3	87	5	26	11	40	2.38	- 1.35	0.44	0	11	11	14	6	J. N. Ridéour.
Peebles.	Adams.	645	21	61.3	- 0.4	88	5	24	11	43	5.26	- 1.7	0.83	0	11	14	10	7	Ora O. Smalley.
Philo.	Muskingum.	1,018	18	61.4	- 1.4	89	3†	30	11	35	2.49	- 1.10	0.42	0	10	13	11	7	L. C. Burckholter.
Piqua.	Miami.	847	3															Harry L. Roberts.	
Plattsburg.	Clark.	1,130	20	61.2	- 0.2	85	2	29	11	36	4.07	+ 0.38	2.00	0	7	13	9	F. E. Stewart.	
Portsmouth.	Scioto.	527	82	65.4	+ 0.4	93	4†	32	11	44	3.93	+ 0.35	1.02	0	10	16	2	13	Dr. H. A. Schirrmann.
Prospect.	Marion.	909	3															Neil J. Gast.	
Sidney.	Shelby.	955	30	61.4	- 0.3	87	2†	30	11	39	1.98	- 2.35	0.74	0	9	13	8	10	Hamline B. Blake.
Somerset.	Perry.	1,080	14	63.0	- 0.2	88	2†	33	10†	38	3.18	- 0.75	0.83	0	10	18	10	3	Miss M. W. C. Sheridan.
Springfield.	Clark.	980	19															W. A. Webster.	
Summerfield.	Noble.	1,187	7	59.9		88	4†	25	11	48	3.16	- 0.73	0.73	0	11	13	12	5	H. R. McClintock.
Syracuse.	Meigs.	583	2	64.8	- 0.1	95	4	26	11	49	5.75	- 1.06	0	11	17	5	9	Irving R. Karr.	
Thurman.	Gallia.	696	20	63.2	- 1.1	89	4	30	11	40	5.82	+ 2.91	1.55	0	8	11	7	D. D. Thomas.	
Toboso.	Licking.			60.4		88	3†	27	11	44	2.40	- 0.59	0	7	14	5	4	H. A. Albyn.	
Urbana.	Champaign.	1,031	45	60.6	- 0.3	86	2†	27	11	44	3.37	- 0.13	1.14	0	10	11	16	4	Prof. J. H. Williams.
Warren.	Trumbull.	900	24	57.6	- 1.1	87	4†	27	11	42 ^c	2.50	- 1.12	1.18	477	7			M. D. McCorkle.	
Waverly.	Pike.	590	30	62.6	- 1.3	90	5	28	11	46	4.60	+ 0.78	1.59	0	1	11	2	18	Dr. Peru Hutt.
Waynesville.	Warren.	700	28	61.7	- 0.3	85	30	31	11	33	3.03	- 0.97	0.85	0	7	14	9	8	Charles Michener.
Wooster.	Wayne.	1,030	34	57.9	- 0.8	86	5	25	11	46	3.04	- 0.92	1.30	0	8	18	4	9	Experiment Station.
Youngstown.	Mahoning.	846	20															J. M. Dickey.	
Zanesville.	Muskingum.	700	26															S. G. Sprague.	
Indiana.																			

TABLE 1.—Climatological data for May, 1913. District No. 8—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years	Temperature, in degrees Fahrenheit.						Precipitation, in inches.				Sky.				Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.10 inch or more.	Number of partly cloudy days.	Number of clear days.	
<i>Indiana—Continued.</i>																		
Judyville.....	Warren.....	450	6	62.5	.....	88	28†	29	11	41	2.06	.....	0.71	0	9	15	7	sw.
Kokomo.....	Howard.....	840	21	61.4	-0.8	84	27	33	11	38	4.19	+ 0.20	2.31	0	9	14	6	sw.
Lafayette.....	Tippecanoe.....	617	34	62.6	+ 1.4	86	28	34	10†	36	2.62	- 1.79	0.96	0	6	19	3	sw.
Logansport.....	Cass.....	620	33	62.4	+ 0.2	89	2	31	11	41	4.78	+ 0.54	1.78	0	9	16	5	e.
Madison.....	Jefferson.....	460	21	66.2	+ 0.7	95	30	36	12	44	2.16	- 2.30	0.58	0	7	14	10	nw.
Marengo.....	Crawford.....	363	31	63.6	- 0.8	92	30	30	12	49	1.85	- 3.24	0.81	0	6	8	17	sw.
Marion.....	Grant.....	814	27	62.0	+ 1.1	87	5	29	11	39	3.78	- 0.14	1.06	0	9	10	8	s.
Mauzy.....	Rush.....	980	33	61.3	+ 0.3	87	30	28	11	46	3.12	- 1.31	1.30	0	7	11	9	sw.
Monticello.....	White.....	674	3								4.14		2.00	0	8	14	10	s.
Moores Hill.....	Dearborn.....	980	12	63.9	+ 0.8	88	30	32	11	44	2.35	- 2.09	0.55	0	9	18	1	nw.
Mount Vernon.....	Posey.....	410	27	66.6	+ 0.5	96	30	42	11†	40	0.38	- 3.35	0.16	0	4	20	2	sw.
Nashville.....	Brown.....			63.6*	.....	91*	30	30*	11	44*	1.37		0.66	0	4	11*	6*	sw.
Paoli.....	Orange.....	611	16	63.9	- 0.8	96	30	29	12	48	1.47	- 2.55	0.55	0	8	12	4	sw.
Princeton.....	Gibson.....	481	31	67.0	+ 2.5	97	30	38	11	42	2.48	- 1.15	1.00	0	3	20	5	sw.
Richmond.....	Wayne.....	972	28	61.3	+ 0.6	86	2	29	11	48	2.67	- 1.34	1.33	0	8	10	17	4
Rochester.....	Fulton.....	775	8	60.4	.....	83	2	33	9	33	5.40		1.63	0	10	13	14	4
Rockville.....	Parke.....	772	27	65.2	+ 3.2	91	28	34	11	44	1.28	- 2.95	0.38	0	5	10	14	7
Rome.....	Perry.....	370	10	67.4	+ 0.6	96	30†	35	12	48	2.15	- 1.53	0.64	0	9	18	7	sw.
Salamonie.....	Jay.....	950	8	60.2*	.....	85*	2†	26*	11	37*	1.97		1.02	0	6	13	12	6
Salem.....	Washington.....	717	20	64.0	+ 0.2	94	30	32	12	45	1.75	- 1.97	0.90	0	7	9	15	s.
Scottsburg.....	Scott.....	570	19	65.3	- 0.2	93	30	34	12	42	1.94	- 1.97	0.60	0	6	13	12	6
Seymour.....	Jackson.....	610	26	66.0	+ 2.4	95	30	33	11†	45	1.60	- 2.57	0.68	0	5	13	13	5
Shelbyville.....	Shelby.....	768	9	64.1	.....	90	30†	30	11	40	3.01		0.65	0	8	9	17	5
Shoals.....	Martin.....	523	6	65.8	.....	93	31	36	12	44	1.73		1.06	0	6	21	0	ne.
Terre Haute.....	Vigo.....	498	23	65.0	+ 0.2	92	30	37	11	38	1.44	- 2.67	0.64	0	8	13	10	s.
Veedersburg.....	Fountain.....	612	14	65.0	+ 2.5	91	28	30	11	42	1.43	- 3.00	0.50	0	8	18	9	n.
Vevay.....	Switzerland.....	525	32	65.2	+ 0.1	93	30	36	11†	37	3.15	- 1.49	0.75	0	7	6	14	11
Vincennes.....	Knox.....	431	21	66.7	+ 0.8	97	30	40	11	39	1.70	- 1.82	0.75	0	5	20	0	se.
Washington.....	Davies.....	484	17	66.5	+ 1.9	95	30	38	11	34	1.02	- 2.40	0.46	0	5	13	11	7
Whitestown.....	Boone.....	529	5	62.2	.....	89	30	38	10†	42	2.28		0.67	0	7	3	25	3
Winona Lake.....	Kosciusko.....	865	6	59.9	.....	86	2†	29	10†	40	4.11		1.97	0	8	7	22	2
Worthington.....	Greene.....	526	31	65.8	+ 2.6	96	30	35	11	43	0.56	- 3.50	0.25	0	3	11	15	5
<i>Illinois.</i>																		
Albion.....	Edwards.....	531	22	66.4	+ 0.4	94	30	39	11	37	2.65	- 1.46	0.94	0	8	19	6	sw.
Casey.....	Clark.....	645	10								0.50	- 2.91	0.50	0	1	13	10	s.
Charleston.....	Coles.....	720	28	65.6	+ 2.1	94	30	32	11	40	0.61	- 3.15	0.27	0	5	6	15	10
Danville.....	Vermilion.....	604	12	65.2	+ 0.4	92	28	34	10†	43	0.54	- 2.81	0.30	0	5	19	5	sw.
Equality.....	Gallatin.....	421	15	65.4	- 2.1	99*	30	41	11†	36*	1.22	- 2.07	0.62	0	4			j. j. lemon.
Fairfield.....	Wayne.....	450	20	66.4	+ 0.4	97	30	36	8	44	2.30	- 1.37	0.59	0	8	15	12	4
Flora.....	Clay.....	495	27	65.9	+ 2.0	96	30	38	12	40	1.58	- 2.41	0.55	0	6	14	10	sw.
Golconda.....	Pope.....	500	35	68.6	+ 1.2	95	31	41	12	42	1.73	- 2.29	0.73	0	3	13	10	sw.
Hooperston.....	Vermilion.....	715	11	63.6	+ 1.4	89	29†	30	10	39	1.99	- 1.86	0.56	0	9	19	7	sw.
McLeansboro.....	Hamilton.....	462	30	66.0	+ 0.8	94	30	42	11†	39	2.25	- 1.49	0.65	0	8	21	3	sw.
Metropolis.....	Massac.....	346	2								0.85		0.50	0	3	22	3	sw.
Montrose.....	Effingham.....	599	3	64.4	.....	96	30	34	11	44	0.58		0.45	0	4	9	18	4
Mount Carmel.....	Wabash.....	424	12	66.2	0.0	95	30	42	11†	38	2.06	- 1.54	0.76	0	7	15	6	sw.
New Burnside.....	Johnson.....	613	18	65.2	- 1.9	94	31	40	7	35	1.64	- 2.12	0.65	0	7			mrs. h. m. philips.
Newton.....	Jasper.....	484	18								1.39		0.46	0	6	17	9	j. m. hicks.
Olney.....	Richland.....	486	26	65.0	+ 0.4	95	30	38	10	40	2.37	- 1.37	0.58	0	8	16	11	sw.
Palestine.....	Crawford.....	500	31	66.6	+ 2.7	97	29	37*	10	40*	0.79	- 2.77	0.34	0	7	18*	3*	s.
Paris.....	Edgar.....	600	20	63.6	+ 0.1	91	30	32	11	41	2.31	- 1.59	2.12	0	3	7	23	1
Philo.....	Champaign.....	700	29	63.6	+ 1.8	92	30	32	11	39	0.57	- 3.32	0.22	0	4	16	9	sw.
Rileyville.....	Saline.....	400	16								1.61	- 1.63	0.50	0	6	15	5	w. thornberry.
Shawneetown.....	Gallatin.....	307	3								1.02		0.42	0	6			mrs. mary o. spivey.
Tuscola.....	Douglas.....	644	20								0.80	- 2.68	0.23	0	6	12	15	joseph o'neal.
Urbana.....	Champaign.....	751	11	62.8	+ 1.3	89	31	33	10†	37	0.56	- 3.45	0.30	0	5	5	18	8
<i>Kentucky.</i>																		
Alpha.....	Clinton.....	19	65.9	- 0.7	86	30	38	12	35	2.57	- 1.31	1.30	0	5	16	8	7	w. w. hicks.
Anchorage.....	Jefferson.....	700	12	64.4	+ 0.3	91	30	35	11	44	1.43	- 2.54	0.30	0	8	18	7	sw.
Bardstown.....	Nelson.....	637	16	67.8	+ 1.1	93	30	37	12	44	3.06	- 0.36	0.87	0	8	20	4	t. s. talbott.
Beattyville.....	Lee.....	650	9	64.6	+ 0.5	91	2†	30	12	52	4.04	- 0.14	1.24	0	9	17	3	g. w. cann.
Beaver Dam.....	Ohio.....	441	10	66.9	+ 0.9	97	31	35	12	50	0.87	- 3.00	0.30	0	5	19	5	w. t. austin.
Berea.....	Madison.....	1,070	66.6	+ 1.0	91	5	38	11	44	3.40	- 0.73	0.87	0	11	18	6	c. f. rumold.	
Blandville.....	Ballard.....	445	32	67.4	+ 0.9	93	31	47	11	32	0.65	- 3.88	0.26	0	5	11	11	e. w. horr.
Bowling Green.....	Warren.....	500	24	67.8	+ 0.2	94	30†	38	12	47	1.55	- 2.53	0.55	0	6	20	5	mrs. l. g. causey.
Burnside.....	Pulaski.....	773	22								2.53	- 1.54	0.91	0	7			k. w. massey.
Calhoun.....	McLean.....	397	10	68.1	- 0.9	94	30	40	12	40	1.64	- 1.73	0.49	0	10	7	20	w. a. taylor.
Catlettsburg.....	Boyd.....	544	24								5.04	+ 0.88	1.36	0	10			mrs. mertie m. bruns.
Earlington.....	Hopkins.....	370	23	69.0	+ 2.2	98	31	38	12	44	0.70	- 4.31	0.34	0	4	20	4	brick southworth.
Edmonton.....	Metcalfe.....	600	22	66.0	+ 1.0	90	30	36	12	44	3.31	- 1.11	0.95	0	8	15	12	4
Eubank.....	Pulaski.....	1,177	19	64.1	- 0.1	87	5	36	12	41	3.26	- 0.69	1.20	0	7	18	3	miss lee ray.
Falmouth.....	Pendleton.....	530	24								3.41	- 0.17	0.71	0				

TABLE 1.—*Climatological data for May, 1913. District No. 3—Continued.*

TABLE 1.—*Climatological data for May, 1913. District No. 8—Continued.*

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.				Sky.	Prevailing wind direction.	Observers.				
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of overcast days.		
<i>North Carolina—Contd.</i>																				
Hot Springs.....	Madison.....	1,326	15	65.2	- 0.7	89	4	35	11	39	5.66	.....	2.09	0	10	15	5	11	w.	P. A. Garner.
Jefferson.....	Ashe.....	2,900	6	60.6	.....	86	5	28	11	45	6.59	.....	2.00	0	11	6	4	21	w.	Prof. E. J. Johnson.
Marshall.....	Madison.....	1,646	11	64.4	0	88	5†	36	11†	45	5.06	+ 1.86	2.08	0	13	14	8	9	w.	M. L. Church.
Murphy.....	Cherokee.....	1,614	37	.....	.....	.....	.....	.....	.....	.....	5.29	+ 1.41	2.00	0	11	.....	.....	.....	.....	Miss Victoria Mingus.
Rock House.....	Macon.....	3,100	21	62.7	0	81	30†	43	12	24	4.73	- 0.99	3.14	0	12	13	14	4	s.	Barry C. Hawkins.
Waynesville.....	Haywood.....	2,792	19	62.0	0	85	30	32	12	42	4.92	+ 0.92	1.90	0	10	6	15	10	sw.	Mrs. Chas. E. Quinlan.
<i>Virginia.</i>																				
Blacksburg.....	Montgomery.....	2,170	22	60.4	+ 0.1	87	4†	27	12	46	5.12	+ 1.14	2.32	0	10	20	6	5	w.	Agricultural Exp. Station.
Burkes Garden.....	Tazewell.....	3,250	18	57.4	- 0.5	80	4	24	12	47	4.57	- 0.31	1.97	0	6	11	4	15	w.	C. H. Greever.
Elk Knob.....	Lee.....	3,243	10	65.0	+ 1.1	85	5	35	11	31	6.01	+ 2.32	2.01	0	12	13	9	9	nw.	Henry Nicoll.
Ivanhoe.....	Wythe.....	2,028	9	61.4	.....	84	5	34	12	36	5.56	.....	2.20	0	10	16	12	3	w.	Miss Alice G. Jewett.
Max Meadows.....	do.....	2,028	17	60.8	- 1.1	88	4†	26	12	50	4.41	+ 0.47	2.53	0	6	15	12	4	sw.	James M. Graham.
Mendota.....	Washington.....	1,350	4	.....	.....	.....	.....	.....	.....	.....	5.68	.....	0.92	0	13	.....	.....	.....	.....	Frank M. Barker.
Mountain Lake.....	Giles.....	4,348	3	54.9	.....	80	4†	28	10	44	6.78	.....	2.67	0	10	20	6	5	n.	H. E. Dorland.
Radford.....	Montgomery.....	1,773	4	.....	.....	.....	.....	.....	.....	.....	6.86	.....	1.80	0	7	.....	.....	.....	.....	Arthur Roberts.
Speers Ferry.....	Scott.....	1,221	17	.....	.....	.....	.....	.....	.....	.....	7.41	+ 3.46	1.82	0	13	.....	.....	.....	.....	Miss L. E. Venable.
Wytheville.....	Wythe.....	2,293	20	60.9	- 0.5	86	5	29	12	42	5.87	+ 1.96	1.96	0	13	15	13	3	nw.	U. S. Weather Bureau.

*, b, c, etc., indicate respectively, 1, 2, 3, etc., days missing from the record.

** Temperature extremes are from observed readings of the dry bulb; means are computed from observed readings.

† Also on other dates.

|| Estimated by observer.

T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 2.—*Daily precipitation for May, 1913. District No. 3, Ohio Valley.*

TABLE 2.—*Daily precipitation for May, 1913. District No. 3—Continued.*

TABLE 2.—*Daily precipitation for May, 1913. District No. 3—Continued.*

TABLE 2.—*Daily precipitation for May, 1918. District No. 3—Continued.*

TABLE 2.—*Daily precipitation for May, 1913. District No. 8—Continued.*

Stations.	Watershed.	Day of month.																														Total.		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
<i>North Carolina—Con.</i>																																		
Jefferson	G. Kanawha	.02	T.	.90																														6.59
Marshall	Tennessee																																5.06	
Murphy ||		.02	.14	.25																													5.29	
Rock House	Savannah	T.	.07	T.	T.																												4.73	
Waynesville ||	Tennessee		T.																														4.92	
<i>Virginia.</i>																																		
Blacksburg	Kanawha	.09																															5.12	
Burkes Garden	Tennessee	T.																															4.57	
Elk Knob	do	.15	.15	.02																													6.01	
Ivanhoe ||	Kanawha	.03	.03																														5.56	
Max Meadows	do	T.	T.	T.																													4.41	
Mendota ||	Tennessee	.56																															5.68	
Mountain Lake	Kanawha	.20																															6.78	
Radford ||	do																																6.86	
Speers Ferry ||	Tennessee	.03	.10																														7.41	
Wytheville	Kanawha	.10	.05	.01																													5.87	

* Precipitation included in that of the next measurement.

† Separate dates of falls not recorded.

|| Precipitation for the 24 hours ending on the morning when it is measured.

T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 3.—*Maximum and minimum temperatures at selected stations for May, 1913. District No. 8, Ohio Valley.*

Date.	Pennsylvania.				West Virginia.										Ohio.														
	Greenville.		Pittsburgh.		Charleston.		Elkhorn.		Elkins.		Glenville.		Huntington.		Morgantown.		Parkersburg.		Wheeling.		Canton.		Cincinnati.		Columbus.		Dayton.		
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.			
1...	81	30	77	44	80	42	77	39	76	32	85	36	82	41	77	42	79	43	85	39	80	37	79	49	78	50	78	48	
2...	85	37	84	52	86	48	81	45	83	38	87	40	89	45	84	49	86	48	91	41	86	43	87	54	85	56	85	53	
3...	87	41	85	55	87	52	81	49	84	42	90	46	87	51	86	53	88	53	91	44	87	46	85	59	85	60	82	60	
4...	88	47	88	57	86	54	87	49	86	44	92	48	89	50	88	55	89	54	91	45	87	51	83	59	84	61	81	64	
5...	90	46	86	58	90	55	87	50	86	44	93	50	91	54	87	55	90	57	90	52	88	51	87	65	86	63	84	66	
6...	78	53	78	56	87	57	81	54	79	55	86	56	80	55	83	60	80	61	82	50	75	59	71	60	71	58	69	54	
7...	63	40	64	50	72	52	79	55	64	41	75	55	73	58	73	51	67	53	75	54	64	43	68	54	64	46	65	47	
8...	70	31	71	46	78	44	68	45	73	32	83	36	80	44	75	35	75	45	79	39	72	36	74	47	70	41	72	42	
9...	58	43	61	40	73	50	75	46	69	43	80	41	78	46	69	44	69	47	65	43	60	44	70	53	61	44	61	48	
10...	50	29	48	33	73	44	60	46	51	34	65	36	62	44	60	31	54	40	60	34	51	30	57	42	52	35	54	38	
11...	54	26	54	33	59	34	60	32	55	25	66	28	65	33	56	28	59	33	65	29	57	26	61	38	60	34	60	34	
12...	65	25	65	37	73	35	73	34	68	25	76	29	77	34	71	30	72	37	74	31	68	28	73	44	69	39	69	41	
13...	72	46	74	55	82	46	76	54	74	37	82	42	84	40	76	49	79	50	82	37	77	47	82	57	78	54	80	54	
14...	71	49	68	54	82	56	73	56	71	53	78	45	69	56	74	50	78	54	69	52	67	49	86	60	70	53	79	59	
15...	76	48	72	56	84	58	72	58	79	53	84	51	85	61	79	57	80	62	77	52	80	51	84	65	80	60	81	62	
16...	71	55	75	60	82	62	73	58	70	55	80	46	77	62	72	61	76	60	81	61	75	58	78	60	75	60	73	60	
17...	78	45	75	56	77	60	70	58	68	54	76	47	78	60	72	58	77	59	80	57	79	49	75	56	77	57	74	58	
18...	73	56	72	56	73	57	72	52	73	54	82	51	79	57	74	55	77	60	81	57	74	59	75	59	74	50	71	52	
19...	63	34	64	48	77	50	74	56	68	43	76	46	72	51	74	50	70	51	76	44	67	40	70	53	67	46	68	48	
20...	71	34	71	48	82	49	80	61	80	41	85	44	83	50	77	43	79	51	79	46	71	43	79	56	74	50	77	52	
21...	83	47	80	61	85	61	79	61	80	58	88	60	86	54	82	59	83	64	86	50	82	52	82	64	81	61	78	63	
22...	73	55	73	55	83	64	70	55	73	56	78	63	69	64	71	55	74	58	72	62	68	54	66	51	66	53	62	50	
23...	60	51	56	52	68	52	60	49	57	50	64	53	57	52	75	49	55	58	62	49	63	52	60	59	62	60	52	60	53
24...	61	48	60	51	64	52	58	48	58	49	68	42	69	51	61	49	63	51	68	51	65	49	71	48	66	47	68	45	
25...	69	39	67	48	65	47	67	48	67	41	78	45	75	46	64	45	68	49	69	46	73	42	73	54	69	50	68	53	
Mns.	70.9	42.6	70.7	50.6	77.5	52.5	73.4	50.7	71.7	45.4	79.5	45.8	77.3	51.9	74.0	49.3	74.6	52.3	76.7	47.5	72.4	46.0	75.6	55.9	72.1	51.3	72.6	52.9	

Date.	Ohio.				Indiana.										Kentucky.													
	Marion.		Waverly.		Butler-		Evans-		Indian-		Kokomo.		Rock-		Worthing-		Philo, Ill.		Beatty-		Bowling		Earling-		Greens-		Lexing-	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.		
1...	82	43	83	39	83	48	83	54	80	53	81	45	84	49	82	43	82	48	87	36	92	43	90	55	87	40	78	53
2...	88	46	89	43	86	53	83	58	84	59	84	50	86	55	86	50	84	49	91	39	91	45	89	49	87	47	84	59
3...	86	56	88	49	84	56	81	63	82	63	83	55	85	53	84	55	86	51	91	48	89	50	86	55	87	50	84	62
4...	84	58	89	49	82	58	80	66	81	62	81	58	83	63	81	59	80	63	90	44	88	50	86	50	83	62	86	62
5...	86	59	90	53	86	57	81	64	84	64	84	60	83	62	85	60	80	61	90	50	90	59	86	55	89	55	86	65
6...	86	60	79	56	69	50	67	57	68	48	74	50	76	53	76	58	70	51	83	53	81	71	61	79	54	72	57	
7...	68	42	71	55	70	43	71	48	67	44	66	36	70	39	72	40	68	35	74	54	79	51	77	51	75	54	68	52
8...	73	34	76	39	78	44	75	51	72	44	74	40	77	45	78	43	77	40	83	41	87	48	84	46	81	45	73	45
9...	65	44	75	41	73	48	78	56	62	42	66	47	66	52	71	49	65	43	84	44	87	48	88	53	85	46	75	54
10...	57	30	58	41	60	42	63	48	57	38	56	32	62	35	64	38	61	44	49	74	54	71	57	67	54	57	42	
11...	63	27	64	28	59	31	66	42	61	38	64	28	66	34	67	35	63	32	67	33	74	41	73	43	69	38	59	35
12...	72	32	73	32	75	34	75	44	72	42	72	34	76	41	76	39	76	37	82	30	83	38	82	33	73	41	77	50
13...	80	53	82	41	83	53	82	58	80	57	80	73	83	52	83	50	83	51	87	41	89	44	88	50	85	40	81	55
14...	68	53	79	50	89	62	87	66	85	58	76	55	90	64	89	64	90	59	87	52	92	59	93	65	91	61	86	64
15...	83	56	80	57	86	63	83	66	82	63	82	60	87	61	85	63	83	62	91	59	85	65	86	61	82	61	82	61
16...																												

TABLE 3.—*Maximum and minimum temperatures at selected stations for May, 1913. District No. 3—Continued.*

Date.	Kentucky.						Tennessee.										Decatur, Ala. ^{§§}		Asheville, N. C.		Virginia.							
	Louisville.		Maysville. ^{§§}		Williamsburg. ^{§§}		Chatta-nooga.		Johnson City. ^{§§}		Knoxville.		Nashville.		Palmetto.		Sparta.		Waynesboro.						Blacksburg.		Wytheville.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	82	53	84	40	86	39	83	49	84	40	82	47	84	51	80	44	85	42	85	41	86	45	79	40	78	32	79	37
2....	86	58	91	44	88	45	84	54	87	45	85	53	85	56	84	50	85	48	85	47	86	48	81	49	84	38	82	43
3....	84	65	89	50	90	49	85	54	90	43	86	55	83	58	86	51	87	49	84	50	85	55	83	50	86	40	85	47
4....	82	63	89	49	85	46	87	56	91	49	85	54	84	60	86	56	88	49	85	54	87	58	84	48	87	44	86	48
5....	85	66	93	51	89	45	87	59	92	41	88	59	85	63	85	58	86	53	86	56	87	60	85	52	87	42	86	47
6....	70	57	78	54	83	53	85	61	83	55	82	60	80	60	81	58	81	54	81	56	83	59	80	52	83	44	81	49
7....	71	45	76	54	74	56	78	59	78	55	74	57	74	57	75	54	76	54	73	55	76	55	73	54	76	55	71	51
8....	76	49	80	41	81	56	78	57	79	49	76	56	78	56	81	51	82	50	82	47	81	54	80	52	85	42	82	46
9....	78	55	79	44	83	51	76	60	82	50	79	56	82	55	83	53	84	52	85	57	85	57	74	47	76	37	74	40
10....	61	46	62	44	86	52	75	57	67	59	70	51	72	56	74	53	75	49	73	57	78	55	66	48	64	48	62	41
11....	64	40	67	30	71	48	72	50	72	34	69	44	71	48	75	49	75	42	70	51	74	56	66	42	63	30	62	30
12....	75	45	78	33	80	34	72	53	78	45	73	45	78	51	77	55	78	42	80	45	76	53	71	37	70	27	69	29
13....	82	58	86	41	85	41	81	57	79	50	80	58	84	56	82	60	84	53	84	50	85	56	76	48	77	36	75	45
14....	89	68	88	55	82	57	83	65	87	54	84	62	85	64	84	63	85	57	86	64	86	61	83	52	79	47	76	52
15....	83	62	87	59	82	55	82	61	83	57	84	60	83	64	82	65	82	57	84	60	85	65	76	53	79	45	77	52
16....	76	59	67	60	79	60	80	62	82	57	79	61	74	61	78	63	81	63	75	63	78	63	77	53	73	56		
17....	76	59	81	58	78	60	79	62	75	60	76	62	78	61	78	60	78	62	79	64	79	62	72	58	72	58	70	54
18....	74	59	77	57	81	56	84	60	80	55	82	58	81	60	82	57	82	57	84	54	84	56	76	57	75	50	75	51
19....	75	54	77	45	81	60	84	62	82	56	83	63	81	59	84	59	83	58	85	55	85	62	80	56	77	52	78	51
20....	81	55	84	49	86	53	81	65	86	55	82	62	86	62	85	63	85	61	86	60	87	68	76	54	75	48	77	51
21....	82	64	86	56	81	69	83	62	85	56	85	65	78	64	81	64	83	62	80	64	85	63	78	60	72	57	77	56
22....	67	55	78	59	76	65	74	60	76	57	76	60	70	54	72	58	75	60	69	57	70	65	77	63	76	52	74	55
23....	61	52	65	52	56	51	65	55	63	62	61	54	63	54	61	52	60	52	62	52	62	53	64	51	67	50	66	50
24....	70	50	71	47	78	48	71	53	64	52	66	53	68	47	68	49	68	51	69	50	60	48	62	44	57	48		
25....	77	56	78	45	78	46	75	53	79	42	75	48	77	50	76	45	79	45	77	48	77	51	71	41	70	40	70	43
26....	67	61	77	57	78	50	77	54	77	50	76	54	74	58	74	55	75	52	77	53	79	56	73	49	75	46	75	47
27....	68	64	61	57	60	58	69	59	67	56	65	58	70	56	70	57	66	54	71	57	72	60	68	51	66	56	65	53
28....	83	55	80	47	77	47	80	54	74	55	77	56	80	55	82	49	78	50	82	45	80	53	68	51	67	53		
29....	89	68	81	50	83	57	87	65	84	55	88	61	88	66	86	49	87	54	87	52	89	65	81	60	75	54	75	57
30....	93	72	92	58	90	62	88	64	84	64	89	66	90	72	89	61	90	56	89	57	90	59	86	59	82	52	79	57
31....	87	67	85	59	89	62	89	68	84	65	88	64	92	70	93	65	89	67	94	65	95	67	80	60	78	62	77	57
Mns..	77.2	57.2	79.6	49.8	80.7	52.6	79.8	58.4	80.0	52.1	78.9	56.8	79.3	58.4	79.7	55.5	80.5	53.3	80.3	54.3	81.3	57.6	75.0	51.5	74.5	46.3	73.5	48.3

a, b, c, etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.

§§ Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.